

Title (en)
Method of controlling pressure in a fuel rod

Title (de)
VERFAHREN ZUR ÜBERWACHUNG DES DRUCKES IN EINEM BRENNSTAB

Title (fr)
PROCÉDÉ DE RÉGULATION DE PRESSION DANS UNE BARRE DE COMBUSTIBLE

Publication
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Application
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Priority
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Abstract (en)
[origin: EP3073240A1] A method and a system (10) is provided for controlling and monitoring the gas pressure in a nuclear fuel rod (1) during filling of the fuel rod (1) with a gas, and subsequent sealing of the fuel rod (1). The system comprises a control unit (12) and a length measuring system (14), which control unit (12) is communicatively connected to the length measuring system (14). The length measuring system (14) is configured to monitor the length of the fuel rod (1), and the control unit (12) is configured to receive measurements from the length measuring system (14) and to determine the gas pressure inside the fuel rod (1) on the basis of variations of the length of the fuel rod (12). The method comprises positioning (101) an open first end (2) of the fuel rod (1) inside a pressure chamber (11), allowing gas to enter the fuel rod 1; pressurizing (103) the gas in the pressure chamber (11) at a first pressure level; closing (105) the fuel rod (1); and sealing (113) the fuel rod (1). Especially, the method comprises monitoring (107) the variation of the length of the fuel rod (1) between the step of closing (105) and the step of sealing (113), and using the length variation as a measure of the gas pressure variation inside the fuel rod (1).

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